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10/756,790	01/13/2004	Thomas Arnold Anschutz	030408 (9400-62)	2954

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EXAMINER

DALENCOURT, YVES

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/756,790	Applicant(s) ANSCHUTZ ET AL.	
	Examiner YVES DALENCOURT	Art Unit 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/08/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is responsive to amendment filed on 09/08/2010.

Response to Amendment

The Examiner has acknowledged the amended claims 1 – 55.

Response to Arguments

Applicant's arguments filed on 09/08/2010 have been fully considered but they are not persuasive.

Regarding Applicant's amendment (page 18) that McDysan does not teach or suggest receiving a request for a change in bandwidth and/or quality of service for an existing user session, but instead teaches that a customer application may use RSVP to request a new network path with a particular bandwidth.

The Examiner respectfully disagrees with Applicant's assertion because McDysan discloses that policy server 48, which tracks allocated bandwidth for each customer, determines whether the currently allocated bandwidth plus the requested bandwidth is less than the maximum authorized bandwidth for this customer. If so, policy server 48 notifies RBSC 120 with a policy decision indicating approval. RBSC 120 then initiates appropriate ATM or MPLS signaling to set up a RVC or LSP utilizing one more signaling controllers 128. After RBSC 120 receives confirmation of the requested path from the network, RBSC 120 configures packet header filter 80 and forwarding table 86 of PAD 40 to transmit packets in the customer's flow over the

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established SVC or LSP (see col. 17, lines 26 – 34). McDysan further discloses that PAD 40 can also be configured via MCRI control messages to set the TCP retransmission notification threshold, inactivity timers, activity timers and traffic threshold discussed above. Finally, the processing resources of PAD 40 and output buffers and scheduler 88, 96 can be configured by an "Allocate Resource" control message sent via MCRI 58 and control interface 104 **to dynamically allocate resources, such as bandwidth**, queues, and processing time slices, to a customer interface, a packet flow, a class, or a multicast group (claimed receiving a request for a change in bandwidth)(col. 14, lines 23 – 32).

In response to Applicant's argument (pages 18 - 19) that Paul does not appear to include any description of using an application programming interface to communicate with a regional access network to modify bandwidth and/or quality of service associated with a user's session. Moreover, Paul fails to remedy the deficiencies of McDysan described above with respect to receiving a request at a network service provider and/or an application service provider to change the bandwidth and/or quality of service associated with an existing user session.

The Examiner respectfully disagrees with Applicant's argument because Paul discloses a means for maintaining the desired QoS level by performing real-time monitoring and management of network and application parameters including bandwidth, buffer, and cache status, and which can be easily implemented and managed using an Application Programmer Interface ("API") (see col. 1, lines 45-55; col. 2, lines 36-40 ; and col. 4, lines 33-65).

Thus, the combination of McDysan and Paul do disclose the claimed limitations because McDysan discloses receiving a request for a change in bandwidth and/or QoS and Paul further shows using an application programmer interface (API) for real-time monitoring and managing of network and application parameters including bandwidth).

Applicants are interpreting the claims very narrow without considering the broad teaching of the combined references to meet the claimed language. During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." >The Federal Circuit's en banc decision in Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the "broadest reasonable interpretation" standard:

The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

In view of such, the rejection is maintained as follows:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDysan et al. US Patent No. 7,046,680 in view of Paul et al. US Patent No. 7,185,070.

3. McDysan teaches the invention as claimed including a responding to packets requesting policy based services (see abstract).

4. Paul teaches the invention as claimed including a generic quality of service protocol (see abstract).

As per claim 1, McDysan teaches a method of modifying at least one of at least one of bandwidth and quality of service for a user session in a network that comprises a regional access network [MAN 16] that facilitates differentiated end-to-end data transport between a network service provider and an application service provider and a customer premises network that includes customer premises equipment, comprising:

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receiving a request at least one of at least one of the network service provider and the application service provider [programmable access device 40; column 5, lines 56-62] to change at least one of bandwidth and quality of service associated with the user's session (RESV request for bandwidth; column 16, lines 59-64; column 17, lines 1-40); and at least one of the network service provider and the application service provider to communicate with the regional access network to modify the at least one of at least one of bandwidth and quality of service associated with the user's session (policy server then makes that control the functionality of PAD via an API; column 6, lines 1-46).

McDysan does not teach using application programming interface calls to communicate with the regional access network to modify the at least one of at least one of bandwidth and quality of service associated with the user's session. Paul teaches using application programming interface calls to communicate with the regional access network to modify the at least one of at least one of bandwidth and quality of service associated with the user's session. See column 1 lines 45-55; column 2, lines 36-40 ; and column 4 lines 33-65.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the communication of McDysan with the application programming interface calls of Paul. A person of ordinary skill in the art would have been motivated to do this to have the functionality to communicate over multiple protocols.

As per claim 2, McDysan and Paul teach the method of Claim 1, wherein receiving the request comprises: initiating the request at least one of at least one of the network service provider and the application service provider to change at least one of the at least one of bandwidth and quality of service associated with the user's session (McDysan: request bandwidth change by sending a RESV message to PAD; column 16, lines 1-46).

As per claim 3, McDysan and Paul teach the method of Claim 1, wherein receiving the request comprises: receiving the request at least one of at least one of the network service provider and the application service provider from a user to change the at least one of at least one of bandwidth and quality of service associated with the user's session (McDysan: request bandwidth change by sending a RESV message to PAD; column 16, lines 1-46; Figure 6; column 29, lines 64-67; column 30, lines 1-32).

As per claim 4, McDysan and Paul teach the method of Claim 3, wherein the quality of service associated with the user's session is scheduling resources (McDysan: establishing customer flow; column 17, lines 21-35).

As per claim 5, McDysan and Paul teach the method of Claim 4, wherein using the application programming interface comprises: sending a query from at least one of the network service provider and the application service provider to the regional access network to obtain a at least one of bandwidth range and quality of service capabilities from the regional access network (McDysan: query policy server; column 17, lines 18-23).

As per claim 6, McDysan and Paul teach the method of Claim 5, further comprising: presenting to the user via the application service provider and at least one of the network service provider at least one at least one of bandwidth or quality of service option within the at least one of bandwidth range and QoS capabilities received from the regional access network (McDysan: sending a resvy packet to the user; column 17, lines 1-40).

As per claim 7, McDysan and Paul teach the method of Claim 6, further comprising: obtaining a user selection of one of the at least one at least one of bandwidth or quality of service option at least one of the network service provider and the application service provider (McDysan: column 17, lines 1-40); and updating the regional access network with information to provide the selected at least one of bandwidth or quality of service option for the user's session (McDysan: column 17, lines 1-40).

As per claim 8, McDysan and Paul teach the method of Claim 7, further comprising: updating the customer premises equipment with the information to provide the selected at least one of bandwidth or quality of service option for the user's session (McDysan: column 17, lines 1-40).

As per claim 9, McDysan and Paul teach the method of Claim 8, wherein updating the customer premises equipment with information comprises: sending an update session at least one of bandwidth info message and a quality of service related message from the regional access network to the customer premises equipment that contains a request for changing the at least one of bandwidth or quality of service

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associated with the user's session to the selected at least one of bandwidth option in the customer premises equipment (McDysan: column 17, lines 1-40).

As per claim 10, McDysan and Paul teach the method of Claim 9, wherein updating the regional access network with information further comprises: updating a rate limit and quality of service associated with a communication queue in the regional access network that is used to process traffic associated with the user's session (McDysan: column 17, lines 1-40).

As per claim 11, McDysan and Paul teach the method of Claim 7, wherein updating the regional access network with information comprises: sending a change session at least one of bandwidth request message from at least one of the network service provider and the application service provider to the regional access network that contains a request for changing the at least one of bandwidth associated with the user's access session to the selected at least one of bandwidth option in the regional access network (McDysan: column 17, lines 1-40).

As per claim 12, McDysan and Paul teach the method of Claim 11, further comprising: sending a change session at least one of bandwidth response message from the regional access network to at least one of the network service provider and the application service provider that contains an acknowledgement for the change session at least one of bandwidth request message (McDysan: column 11, lines 25-67; column 17, lines 1-40).

As per claim 13, McDysan and Paul teach the method of Claim 11, wherein updating the regional access network with information further comprises: updating a

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rate limit associated with a communication queue in the regional access network that is used to process traffic associated with the user's session (McDysan: column 11, lines 25-37).

As per claim 14, McDysan and Paul teach the method of Claim 5, further comprising: authenticating at least one of the network service provider and the application service provider with the regional access network prior to sending the query from at least one of the network service provider and the application service provider to the regional access network (McDysan: column 17, lines 1-40).

As per claim 15, McDysan and Paul teach the method of Claim 14, wherein authenticating at least one of the network service provider and the application service provider with the regional access network comprises: sending an establish service session request message from at least one of the network service provider and the application service provider to the regional access network that contains an identification of at least one of the network service provider and the application service provider and authorization credentials (McDysan: column 22, lines 1-67; column 27, lines 64-67; column 28, lines 1-32); and sending an establish service session response message from the regional access network to at least one of the network service provider and the application service provider that contains an authentication result (McDysan: column 19, lines 24-67; column 20; column 21, lines 1-35; Figures 7B-7E).

As per claim 16, McDysan and Paul teach the method of Claim 5, wherein sending the query comprises: sending a query session at least one of bandwidth request message from at least one of the network service provider and the application

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service provider to the regional access network that contains a request for at least one of bandwidth information associated with the user's session (McDysan: column 17, lines 1-40); and sending a query session at least one of bandwidth response message including scheduling resources from the regional access network to at least one of the network service provider and the application service provider that contains the at least one of bandwidth range (McDysan: column 17, lines 1-40).

As per claim 17, McDysan and Paul teach the method of Claim 1, wherein the request is a first request, the method further comprising: updating the regional access network and the customer premises equipment with information to modify the at least one of bandwidth and quality of service associated with the user's session (McDysan: column 16, lines 59-67); then receiving a second request at least one of the network service provider and the application service provider to delete or change at least one of bandwidth and quality of service associated with the user's session (McDysan: column 17, lines 1-40); and using application programming interface calls at least one of the network service provider and the application service provider to communicate with the regional access network to change the at least one of bandwidth and quality of service associated with the user's session to a default value in the regional access network (McDysan: column 5, lines 56-62; column 6, lines 1-46).

As per claim 18, McDysan and Paul teach the method of Claim 1, wherein the RAN comprises a Broadband Remote Access Server (BRAS) (McDysan: column 5, lines 39-40).

Claims 19-36 and 37-54 are rejected under the same rationale as claims 1-18 because they teach the system and computer program product of the method of claims 1-18.

As per claim 55, McDysan and Paul teach a method of modifying at least one of bandwidth and quality of service for a user session in a network that comprises a regional access network that facilitates differentiated end-to-end data transport between a network service provider and an application service provider and a customer premises network that includes customer premises equipment, comprising: receiving a request at least one of the network service provider and the application service provider [PAD 40] to change at least one of bandwidth and quality of service associated with the user's session (McDysan: RESV request for bandwidth; column 16, lines 59-64; column 17, lines 1-40); and using messaging interface calls at least one of the network service provider and the application service provider to communicate with the regional access network to modify the at least one of bandwidth and quality of service associated with the user's session (McDysan: policy server then makes that control the functionality of PAD via an API; column 6, lines 1-46).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YVES DALENCOURT whose telephone number is (571)272-3998. The examiner can normally be reached on M-F 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YVES DALENCOURT/
Primary Examiner, Art Unit 2457